ENGLISH

CADET

200 Roll Up - 230 Roll Up - 270 Roll Up

200 Aero - 230 Aero - 270 Aero - 310 Aero - 350 Aero

270 ALU - 310 ALU - 350 ALU

Volume 2

VOLUME 2
TECHNICAL FEATURES - ASSEMBLY PROCEDURE

WARNING	● **READ THIS MANUAL CAREFULLY BEFORE USING YOUR BOAT.** ● **THE OWNER'S MANUAL COMES IN TWO VOLUMES THAT SHOULD BE KEPT TOGETHER.**

NOTE:	**THE OWNER'S MANUAL IS DIVIDED INTO TWO VOLUMES:** - **VOLUME 1** DEALS IN GENERAL WITH THE OPERATING PRECAUTIONS AND SAFETY RECOMMENDATIONS TO BE OBSERVED ONBOARD THE BOAT AND ON THE WATER. - **VOLUME 2** DEALS WITH TECHNICAL SPECIFICATIONS AND ASSEMBLY PROCEDURE OF THE BOAT AND ITS EQUIPMENT.

TABLE OF CONTENTS

	Page		Page
⇨Assembly procedure	3	⇨Pressure	10
⇨Check on unpacking	3	⇨Equipment assembly	11
⇨Boat assembly	4 - 6	⇨Deflating / Folding the boat	12
⇨Inflation system	7		
⇨Inflating the boat	8 - 9	⇨General description	I - VI

ASSEMBLY PROCEDURE

The boat assembly procedure follows an order you must respect. Proceed step by step, referring each time to the pages indicated for explanations.

PROCEDURE	PAGE	SECTION
1. Make an inventory of the parts of your boat and get to know them.	3	**CHECK ON UNPACKING**
	I - VI	**DESCRIPTION**
2. Activate the valves in the inflating position	7	**INFLATION SYSTEM**
Slightly inflate the main buoyancy tube	8 - 9	**INFLATING THE BOAT**
3. **CADET Alu**: Assemble the floorboard and the stringers **CADET RU**: Install the battens **CADET AEROTEC:** Inflate the floorboard.	5 - 6 4 4	**BOAT ASSEMBLY**
4. **I**nstall the thwart.	11	**EQUIPMENT ASSEMBLY**
5. fully inflate the boat to the correct pressure pressure.	8 - 9	**INFLATING THE BOAT**
	10	**PRESSURE**
6. Install the oars	11	**EQUIPMENT ASSEMBLY**

CHECK ON UNPACKING

CAUTION	**DO NOT USE A SHARP TOOL** **(CUTTER, KNIFE, ETC.)**

The pack must contain 1 buoyancy tube +:

CADET	200-230-260 Roll Up	230-260 Aero	260 - 310 Solid	350 SP Alu	400 – 450 SP Alu
Battens	X				
Navy plywood floorboard			X		
Aluminium floorboard				X	X
Aerotec inflatable floorboard		X			
Inflatable keel		X	X	X	X
Stringers			X	X	X
STANDARD EQUIPMENT					
Oars	2	2	2	2	2 paddles
Inflator	1	1	1	1	1
Removable thwart	1	1	1	1	1
Bag	1	1	1	2	2
Repair kit	1	1	1	1	1
Owner's manual	2	2	2	2	2

You can equip your boat with many optional accessories (transportation wheels, ladder, lifting rings etc.). Ask your dealer to advise you.

NOTE:	**IF YOU WANT TO ADD LIFTING RINGS (FOR DAVIT HANDLING), YOU MUST SECURE THEM TO THE BUOYANCY TUBES, NOT ON THE FLOORBOARDS (EXCEPT FOR THE CADET 400 SR, SEE "LOCATION OF ACCESSORIES").**

BOAT ASSEMBLY

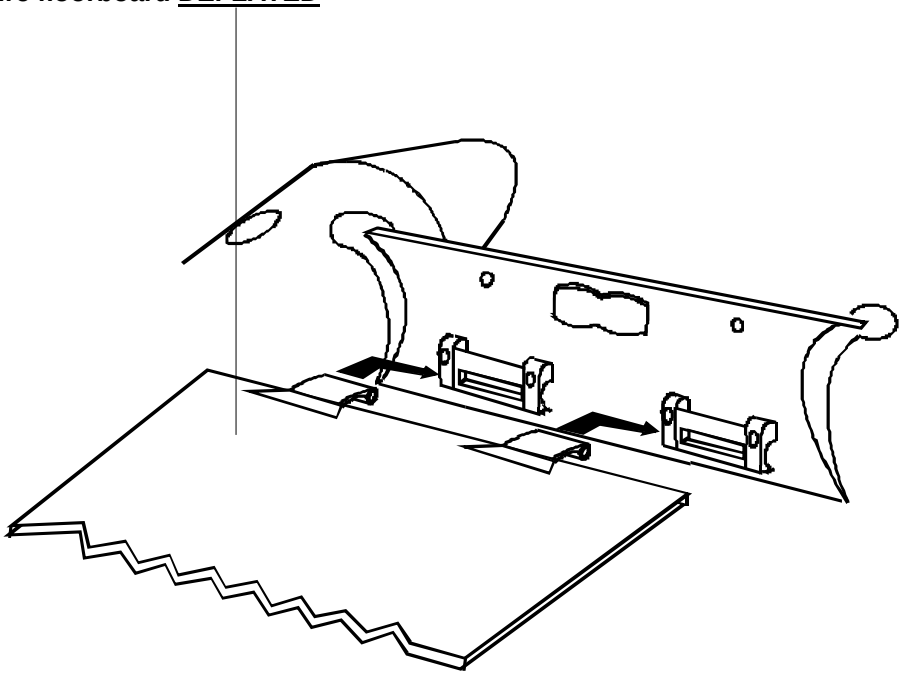
	CHOOSE A SMOOTH, CLEAN SURFACE. IF THE BUOYANCY TUBE WAS STORED AT A TEMPERATURE BELOW 0℃ / 32℉, LEAVE IT AT 20℃ / 68℉ FOR 12 HOURS BEFORE UNFOLDING .

CADET ROLL UP – BATTEN FLOORBOARD:

If the battens are not installed, with the boat deflated, insert the battens in their brackets beginning with the batten nearest the aft transom. If a batten is difficult to insert, lubricate it with liquid soap.

CADET AERO: - INFLATABLE FLOORBOARD

high pressure floorboard <u>DEFLATED</u>



HIGH PRESSURE FLOORBOARD DISASSEMBLY/MAINTENANCE

When folding the boat, we recommend you leave the floorboard in place in the boat.
However, to clean the bottom of the boat where sand and other waste may accumulate, it may be useful to remove the inflatable floorboard. Follow this procedure:

1. **DISASSEMBLY:** Deflate the buoyancy tube and the floorboard.
   Slide the floorboard bolt rope out of its cleats (following the assembly procedure in the reverse order).

2. **MAINTENANCE:** Slightly reinflate the boat and hose down the area between the buoyancy float and the bottom, and then lift the bow of the boat to let the water run out. Repeat the operation until all the sand or waste and has been removed.

BOAT ASSEMBLY

INSTALLING THE NAVY PLYWOOD FLOORBOARD (CADET ALUMINIUM FLOORBOARD (CADET SP ALU).

- Sprinkle some starch in the angle (reinforced strip between the buoyancy tube and the bottom, see figure 1.B) to facilitate the fitting of the floorboard.

CAUTION: NEVER USE TALCUM POWDER

- **Make sure you identify the parts and direction in which they fit:**
  - The floorboard consists of 3 main sections and 2 sections in the bow [fig. 1].
  - Identify the order of the items.
  - The bow sections have an upside and a downside. The aluminium junction sections are striped. The stripes should be visible once the parts are assembled.

The stiffeners must always be on top.

1. **Slightly inflate** the buoyancy tube (this will make it easier to install the floorboard items).
2. **Insert** the bow section (1) into the bow angle.
3. **Insert** the rear section (5) against the transom (6) as show in fig 1.
4. **Fit** all the sections together [fig 1].
5. **Position** sections (3) and (4) as an apex (in a tent-like position) [fig 1 and 2].
6. **Check** that all sections are correctly aligned [fig 4].
7. **Flatten** the apex by standing on it (in the boat) and pulling the lifelines to prevent the fabric from being pinched [fig. 2].
8. **Check** that the floorboard is correctly fitted in the angles.
9. **Install** the stringers (see instructions bellow).

INSTALLING THE STRINGERS :

The stringers are essential for correct operation of the boat: they lock the floorboard together and rigidify its structure.

1. To facilitate the fitting of the first stringer (7), slide the second stringer under the bottom of the boat at about 20 cm from the side [fig. 3-a].

	**DO NOT PUT THE STRINGER IN POSITION UNDER THE BOAT UNTIL THE FLOOR IS FLATTENED: THEY COULD BE DAMAGED BY THE SHOCK.**

2. Position the stringers on the edge of the floorboard. The reference mark on the stringer (8) must remain on top [fig. 3].
3. Fit correctly the stringers between the two buffers (9) of sections 3 and 5 [fig. 4].
4. Rotate the stringers so that they press against the floorboard and fit correctly in the angle [fig. 3 and 4].
5. Because of the self-locking system of the floorboard, the stringers will fit into place once the buoyancy tube is inflated.

BOAT ASSEMBLY

fig 1-A

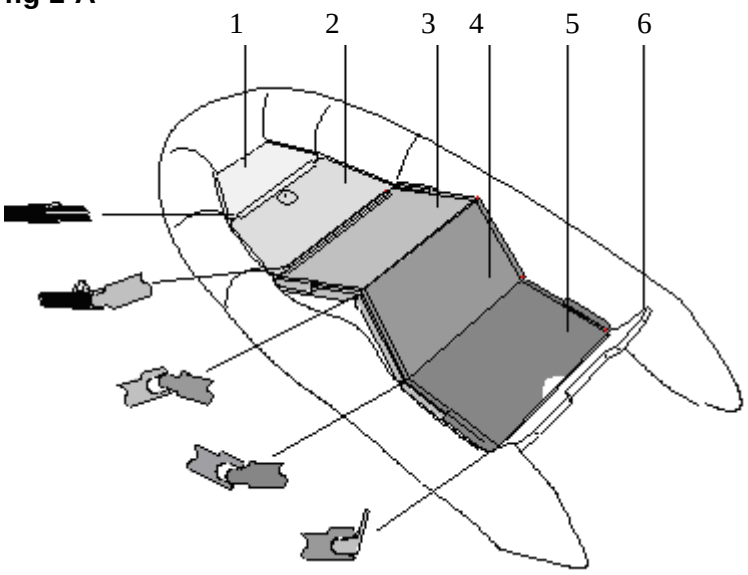


fig 1-B

- **a- floorboard**
- **b- buoyancy tube**
- **c- bow angle**
- **d- bottom**

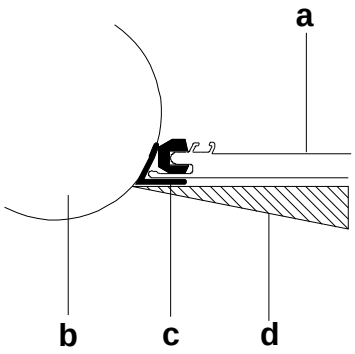
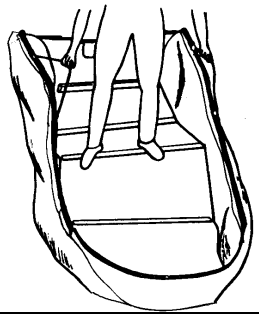


fig 2



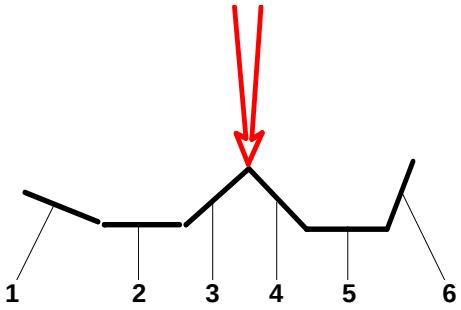
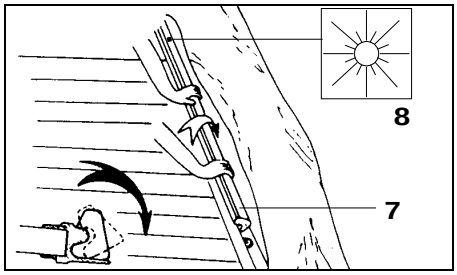


fig 3



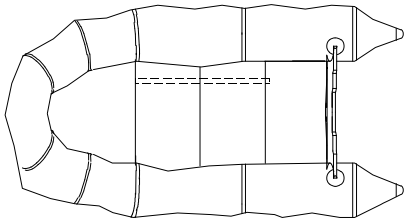
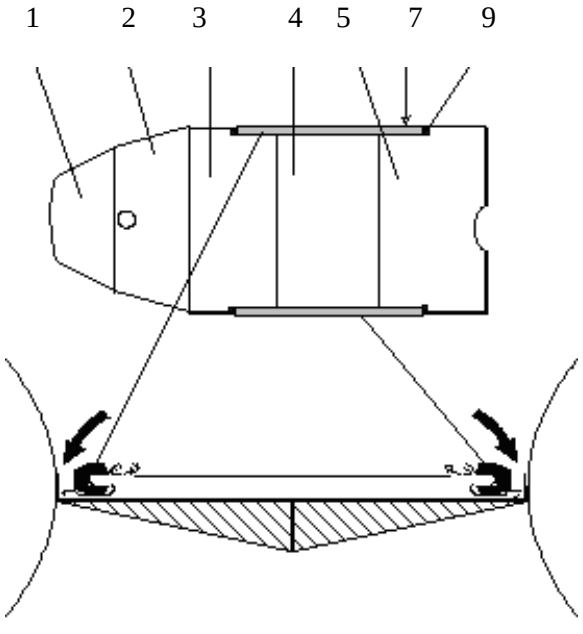


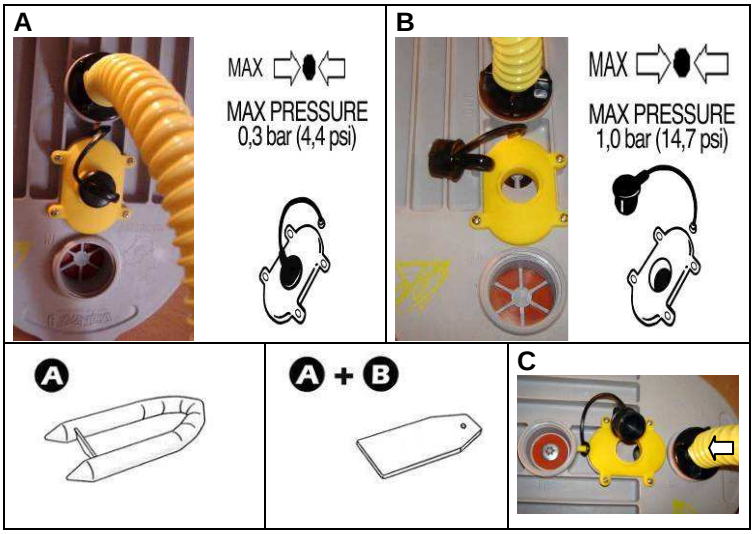
fig 4



INFLATION SYSTEM

The inflation system is composed of:

THE HIGH PRESSURE FOOT-PUMP FOR MODELS WITH AN INFLATABLE AEROTEC FLOOR



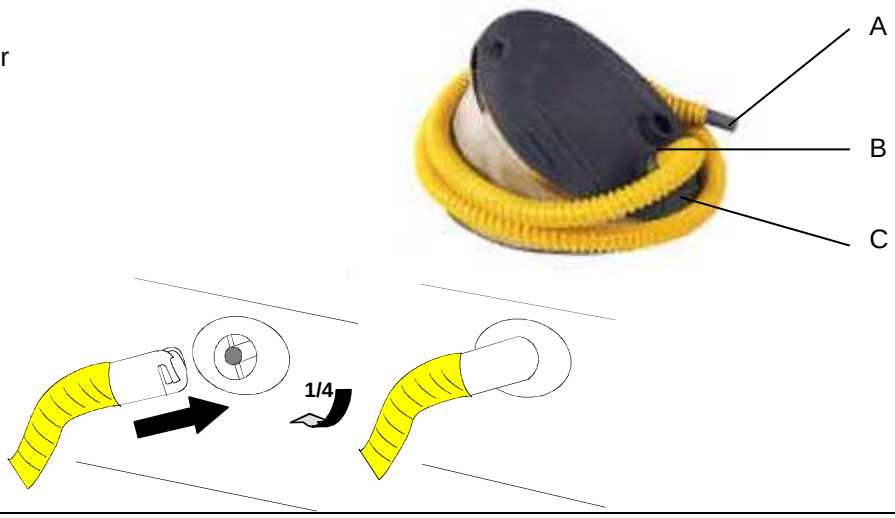
Position A
The pump has maximum flow but low pressure: this position is used to give shape rapidly to all inflatable parts of the boat.

Position B
The flow is inferior to position **A,** but provides pressure that is superior, with the same effort.

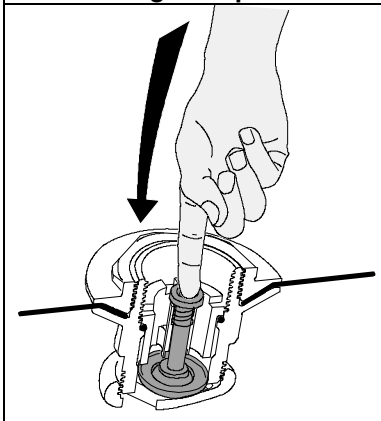
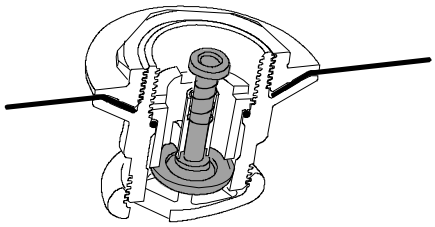
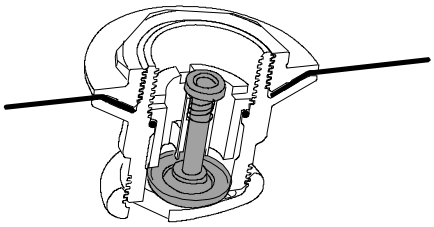
Position C
To deflate. Insert the tube as indicated in figure C and pump normally.

THE STANDARD INFLATOR – EXCEPT FOR AEROTEC MODELS.

A. tube nozzle
B. tube connector
C. inflation port



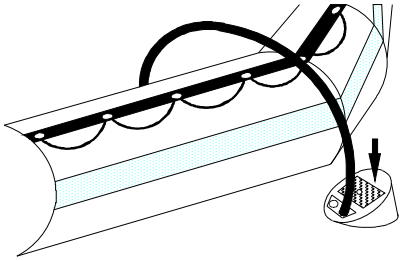
THE VALVES .

To change the position:	Inflation position	Deflation position
		
Push / Push	**diaphragm closed, the inner button springs upwards**	**diaphragm open, the inner button goes down**

INFLATING A NON AEROTEC BOAT (WITH BATTENS OR RIGID FLOOR)

Activate all valves in the inflation position.

Attach the hose connector to the inflator inflation port.
To inflate your boat properly, the inflator should be correctly placed on the ground.
The boat inflates rapidly if the inflator is used smoothly and without haste.

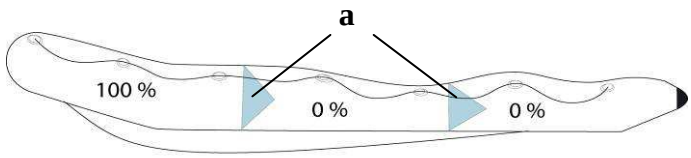
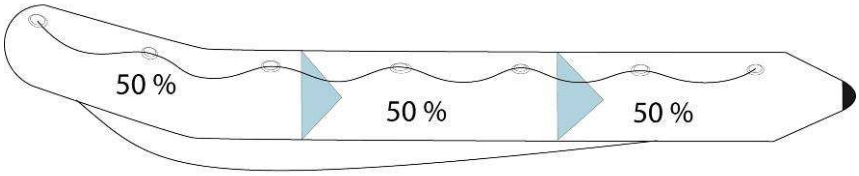
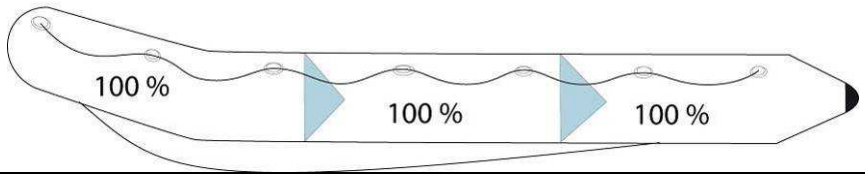


CAUTION	**DO NOT USE A COMPRESSOR OR COMPRESSED AIR CYLINDER.**

You can us the electrical air pump *ACCESS* (ask your Dealer).

INFLATING THE BUOYANCY CHAMBER (see "PRESSURE" section)

- Inflate the buoyancy mechanism, **balancing the pressure between the different compartments until the partitions (a) are no longer visible (see "PRESSURE" section)**

	Never pressurise a compartment when the others are completely deflated	
	1	
	2	

INFLATING THE KEEL **(see "PRESSURE" section)**

- **Once the floorboard is installed,** start inflation (see "PRESSURE" section)

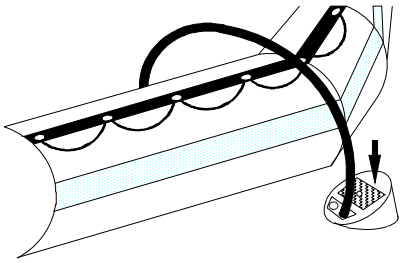
Inflating is complete: screw on the inflating valve caps.

NOTE:	A slight air leak is normal before the valve cap is screwed on **ONLY THE VALVE CAPS CAN ENSURE FINAL AIR TIGHTNESS**.

INFLATING A CADET AERO BOAT

Activate all valves in the inflation position.

Attach the hose connector to the inflator inflation port.
To inflate your boat properly, the inflator should be correctly placed on the ground.
The boat inflates rapidly if the inflator is used smoothly and without haste.



ENGLISH

CAUTION	**DO NOT USE A COMPRESSOR OR COMPRESSED AIR CYLINDER.**

A - INFLATE THE HIGH PRESSURE FLOORBOARD (AEROTECH MODELS ONLY)

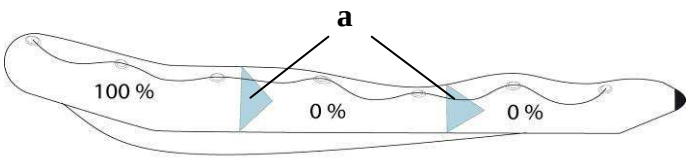
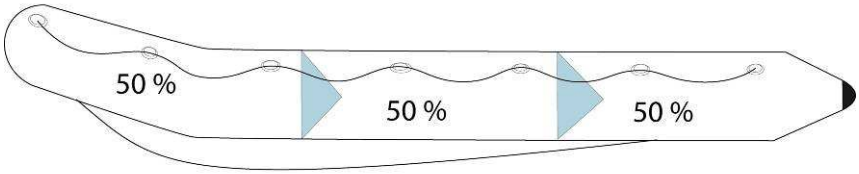
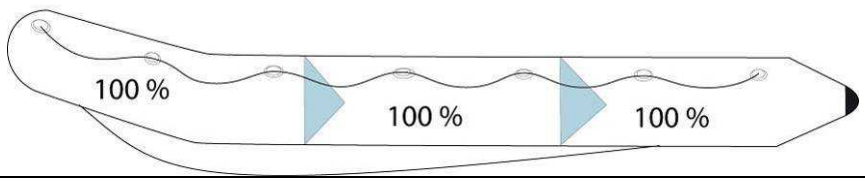
1. **Inflate** Insert the pipe as shown in figure **A** (**with the cap inserted**) and begin to inflate leaving the cap inserted. The inflator uses its full capacity. Inflate until hard.

2. Then **remove the cap**. The pump automatically uses the smallest chamber needed to provide the High Pressure bottom inflation pressure without undue force. **Complete** inflation in position **B** until the recommended pressure is reached **(see "PRESSURE" section)**

B - INFLATE THE MAIN BUOYANCY TUBE AND THEN THE KEEL

CAUTION	**NEVER USE POSITION B TO INFLATE THE BUOYANCY TUBE OR THE KEEL: BURSTING HAZARD.**

Inflate the buoyancy tube Insert the pipe as shown in figure A (**with the cap inserted**) and begin to inflate **leaving the cap inserted**. The inflator uses its full capacity and allows the recommended pressure **(see "PRESSURE" section)**) to be achieved. **Make sure that the pressures between the compartments are equalized**, until the partitions (a) can no longer be seen.

	Never pressurise a compartment when the others are completely deflated	
	1	
	2	

Then inflate the keel (see "PRESSURE" section)
Inflating is complete: screw on the inflating valve caps.

NOTE:	A slight air leak is normal before the valve cap is screwed on **ONLY THE VALVE CAPS CAN ENSURE FINAL AIR TIGHTNESS**.

PRESSURE

The correct pressure for the buoyancy tube and the keel is 240 mb (3.48 PSI) and the correct pressure for the Aerotech inflatable bottom is 600 mb (8.5 PSI).

If your boat is not equipped with an ***ACCESS*** pressure indicator, we recommend that you purchase one from your dealer. This will permit a quick and efficient control of the pressure during inflation. Without a pressure indicator, stop inflating when buoyancy tube is sufficiently hard so that the cones on the aft section of the buoyancy tube cannot be bent by hand.

The ambient temperature of the air or water proportionately influences the level of internal pressure in the buoyancy chamber

Ambient temperature	Buoyancy tube internal pressure
+1°C	+4 mb / 0 .06 PSI
-1°C	-4 mb / 0.06 PSI

Thus, it is important to anticipate:
Check and adjust the pressure of the inflatable compartments (inflating or deflating according to the case) according to the temperature variations (especially when there is a considerable difference in temperature between morning and evening in particularly hot areas) and make sure that the pressure remains within the recommended pressure range (from 220 to 270 mb / green sector).

RISK OF UNDERPRESSURE

EXAMPLE: Your boat is exposed to direct sunlight on the beach (temperature=50°C) at the recommended pressure (240 mb/3.48 PSI). When you launch it (temperature=20°C), the temperature and internal pressure of the inflatable compartments will drop simultaneously (up to 120 mb) and **YOU WILL THEN NEED TO REINFLATE** until you regain the millibars lost due to the difference between the ambient air and water temperatures. A drop in pressure at the end of the day, when the outside temperature is dropping, is normal.

NOTE:	**Proper inflation is critical to the performance of the boat. It is the pressure in the tubes that gives your boat the necessary rigidity to perform well. Under-inflation causes improper flexing of the tubes which will cause early aging.**

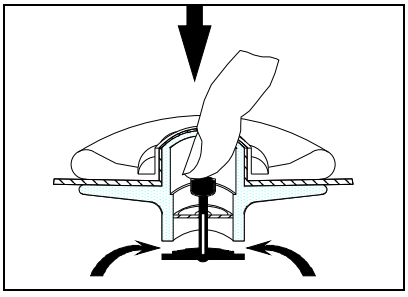
RISK OF OVERPRESSURE

EXAMPLE: Your boat is inflated to its recommended pressure (240 mb/3.48 PSI) at the beginning or end of the day (low outside temperature = 10°C). Later in the day, your boat is exposed in the sun on the beach or on a yacht deck (temperature = 50°C). The temperature inside the inflatable compartments may rise to 70°C (particularly for dark buoyancy chambers), doubling the initial pressure (480 mb). **YOU WILL THEN NEED TO DEFLATE** the boat to return to the recommended pressure.

CAUTION	**IF YOUR BOAT IS OVERINFLATED, THERE WILL BE UNDUE PRESSURE ON THE INFLATABLE STRUCTURE THAT MAY RUPTURE IT.**

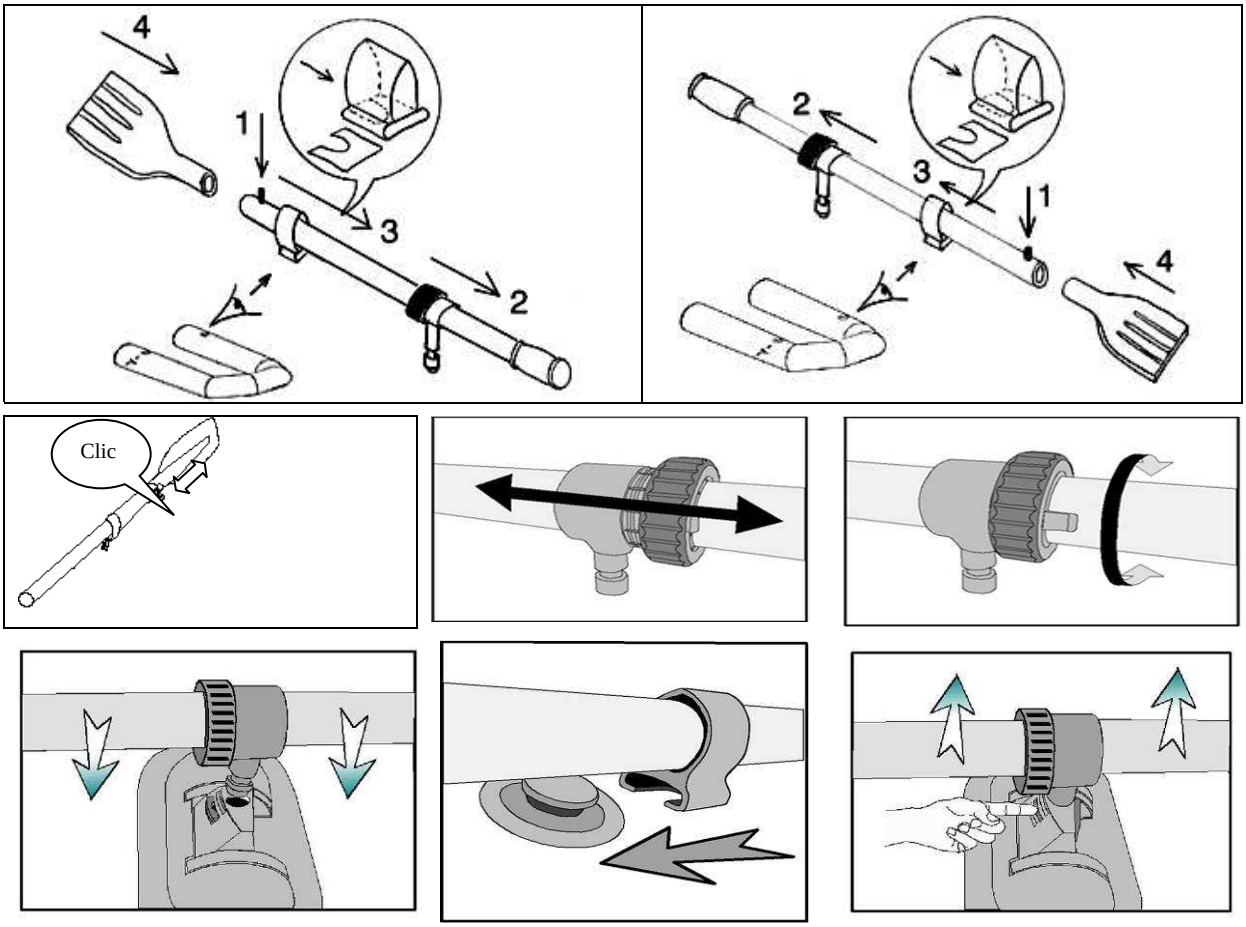
IN THE EVENT OF OVERPRESSURE

Deflate by pressing the spring loaded button.



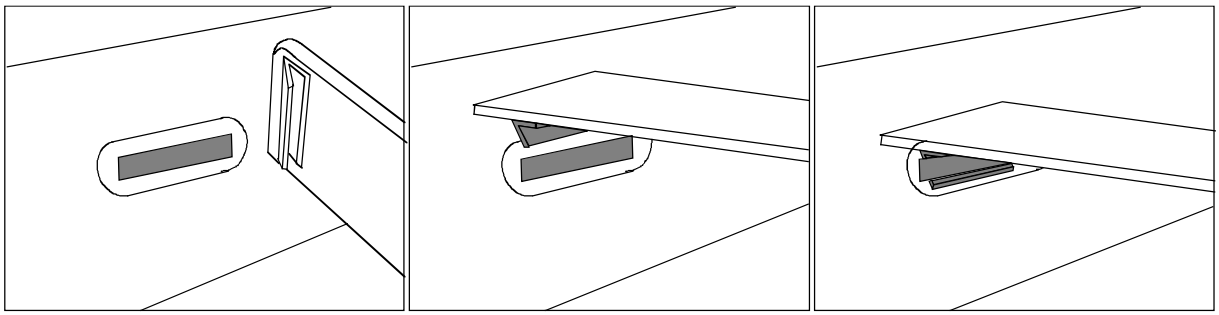
EQUIPMENT ASSEMBLY

OARS



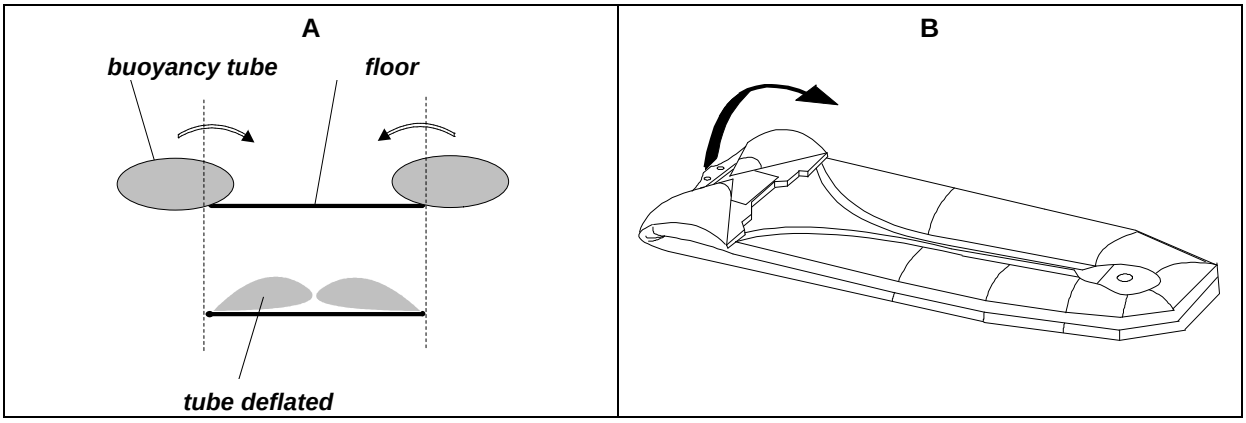
THWART

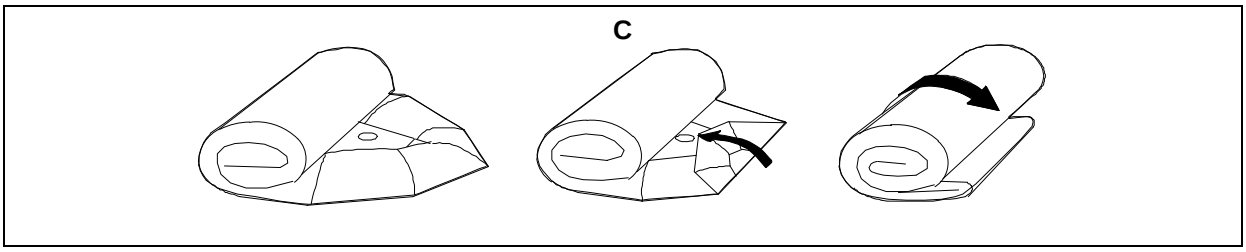
Install the thwart before completing inflation.



DEFLATING / FOLDING THE BOAT

1. **Deflate** the boat.
2. **Replace** the valve protections.
3. **Remove** oars and equipment.
4. **Remove** the floorboard (For CADET Alu only - for models with a slatted floor, It is not necessary to remove the slats to fold the boat).
5. **Empty** the boat of all water and sand by opening the self-bailers, dry it.
6. **Fold in** the 2 sides of the main buoyancy tube (A), fold the cones onto the transom, then **roll up** the boat around the transom (C). Start again if you feel there is still some air left in the tubes.





Stow the boat in its bag.
For some models with wooden or aluminium floorboard, **stow** the floorboard in its bag.